

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) An implantable spinal connector for mating a spinal fixation element to a spinal anchoring device, comprising:

a clamp member having top and bottom portions that are connected to one another at a terminal end thereof such that the top and bottom portions are movable between an open position in which the top and bottom portions are spaced a distance apart from one another, and a closed position in which the clamp member is adapted to engage a spinal fixation element there between, the top and bottom portions including superior and inferior surfaces, respectively, that taper away from one another toward the terminal end, and the clamp member further including a bore extending through the top and bottom portions for receiving a locking mechanism for locking the top and bottom portions in the closed position, the bore in at least one of the top and bottom portions being internally threaded for mating with corresponding threads formed on at least a portion of the locking mechanism.

2. (Original) The implantable spinal connector of claim 1, further comprising a recess formed between the top and bottom portions for seating a spinal fixation element.

3. (Original) The implantable spinal connector of claim 2, wherein the recess is formed adjacent to said terminal end for seating a spinal fixation element therein.

4. (Currently Amended) The implantable spinal connector of claim 2, wherein the recess is formed in at least one of ~~the~~an inferior surface of the top portion and ~~the~~a superior surface of the bottom portion.

5. (Original) The implantable spinal connector of claim 4, wherein the recess is formed in each of the inferior surface of the top portion and the superior surface of the bottom portion of the clamp member.

6. (Currently Amended) The implantable spinal connector of claim 5, wherein ~~each~~the recess has a concave shape such that the ~~recesses together~~ recesses defines a substantially cylindrical recess when the clamp member is in the closed position.

7. (Withdrawn) The implantable spinal connector of claim 1, wherein the top and bottom portions are hingedly coupled to one another at the terminal end thereof.

8. (Withdrawn) The implantable spinal connector of claim 1, further comprising a pivot pin extending through the terminal end of each of the top and bottom portions for hingedly mating the top and bottom portions to one another.
9. (Withdrawn) The implantable spinal connector of claim 8, wherein the pivot pin extends through a bore formed through and extending along a terminal end of each of the top and bottom portions of the clamp member.
10. (Withdrawn) The implantable spinal connector of claim 9, further comprising a recess formed between the top and bottom portions for receiving a spinal fixation element, the recess extending in a direction substantially parallel to a direction of the bore formed through and extending along a terminal end of each of the top and bottom portions of the clamp member.
11. (Original) The implantable spinal connector of claim 1, wherein the top and bottom portions are biased to a closed position such that a force greater than the biasing force must be applied to move the top and bottom portions to the open position.
12. (Original) The implantable spinal connector of claim 1, wherein the top and bottom portions are biased to an open position such that a force greater than the biasing force must be applied to move the top and bottom portions to the closed position.
13. (Original) The implantable spinal connector of claim 1, further comprising a locking mechanism disposable through the bore and effective to lock the top and bottom portions in the closed position to retain a spinal fixation element there between.
14. (Original) The implantable spinal connector of claim 13, wherein the locking mechanism comprises a fastening element having a head and a shaft, and wherein one of the bore formed in the top portion and the bore formed in the bottom portion of the clamp member is adapted to freely rotatably receive the threaded shaft of the fastening element, and the other one of the bore formed in the top portion and the bore formed in the bottom portion is internally threaded to mate to threads formed on at least a portion of the shaft of the fastening element.

15. (Currently Amended) The implantable spinal connector of claim 14, wherein the fastening element includes a flange formed there around and adapted to at least temporarily mate the fastening element to a spinal anchoring device.

16. (Original) The implantable spinal connector of claim 14, wherein the bore in the top portion of the clamp member is internally threaded for mating with corresponding threads formed on at least a portion of the shaft.

17. (Original) The implantable spinal connector of claim 16, wherein the threads in the bore in the top portion of the clamp member and the threads formed on at least a portion of the shaft are left-handed threads.

18. (Original) The implantable spinal connector of claim 16, wherein the fastening element includes a mating element formed on a distal-most end thereof for mating with a driver tool.

19. (Original) The implantable spinal connector of claim 18, wherein the mating element comprises a socket.

20. (Withdrawn) The implantable spinal connector of claim 1, wherein the bottom portion of the clamp member is formed integrally with a spinal fixation plate.

21. (Withdrawn) The implantable spinal connector of claim 1, further comprising a recess formed in a superior surface of the top portion of the clamp member for seating a head of a fastening element.

22. (Original) The implantable spinal connector of claim 1, wherein the clamp member is formed from a material that allows the clamp member to deform around a spinal fixation element disposed between the top and bottom portions when the clamp member is locked in the closed position.

23. (Currently Amended) An implantable spinal connector for mating a spinal fixation element to a spinal anchoring device, comprising:

a clamp member having top and bottom portions that are connected to one another at a terminal end thereof such that the top and bottom portions are movable between an open position and

a closed position;

a recess formed between a superior surface of the top portion of the clamp member and an inferior surface of the bottom portion of the clamp member, the recess being adapted to seat a spinal fixation element therein;

axially aligned, concentric bores extending through the top and bottom portions at a location spaced apart from the recess, the bores being configured to receive a locking mechanism for locking the top and bottom portions in the closed position; and

a substantially ~~planer~~ planar inferior surface extending along the bottom portion of the clamp member and configured to engage a spinal fixation plate, and a superior surface extending along the top portion of the clamp member, the superior and inferior surfaces tapering away from one another toward the terminal end.

24. (Original) The implantable spinal connector of claim 23, wherein at least one of the concentric bores includes threads formed therein.

25. (Original) The implantable spinal connector of claim 24, wherein the threads are left-handed threads.

26-65. (Cancelled)